

# EXHIBIT E

**Electronic Acknowledgement Receipt**

<b>EFS ID:</b>	21875402
<b>Application Number:</b>	14667353
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8845
<b>Title of Invention:</b>	Automated Device Provisioning and Activation
<b>First Named Inventor/Applicant Name:</b>	Gregory G. Raleigh
<b>Customer Number:</b>	106963
<b>Filer:</b>	James E. Harris/Ann Taylor
<b>Filer Authorized By:</b>	James E. Harris
<b>Attorney Docket Number:</b>	RALEP007C11C3
<b>Receipt Date:</b>	25-MAR-2015
<b>Filing Date:</b>	
<b>Time Stamp:</b>	15:02:38
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$40
RAM confirmation Number	1223
Deposit Account	505876
Authorized User	
<p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p>	

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Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		P007C11C3_PreliminaryAmendment.pdf	82007 e2022de055b75f5428e8a81421ee3797bcbf148	yes	7
<b>Multipart Description/PDF files in .zip description</b>					
	<b>Document Description</b>	<b>Start</b>	<b>End</b>		
	Preliminary Amendment	1	1		
	Specification	2	2		
	Claims	3	6		
	Applicant Arguments/Remarks Made in an Amendment	7	7		
<b>Warnings:</b>					
<b>Information:</b>					
2	Power of Attorney	POA.pdf	645382 515a132f61663477437881e177c0308133200ab1	no	2
<b>Warnings:</b>					
<b>Information:</b>					
3	Fee Worksheet (SB06)	fee-info.pdf	29795 e76f5e3cbaa08de9f33a820051117c926342df9	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			757184		

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



Electronic Patent Application Fee Transmittal				
<b>Application Number:</b>		14667353		
<b>Filing Date:</b>				
<b>Title of Invention:</b>		Automated Device Provisioning and Activation		
<b>First Named Inventor/Applicant Name:</b>		Gregory G. Raleigh		
<b>Filer:</b>		James E. Harris/Ann Taylor		
<b>Attorney Docket Number:</b>		RALEP007C11C3		
Filed as Small Entity				
<b>Filing Fees for Utility under 35 USC 111(a)</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	2202	1	40	40
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				40

PTO/AIA/80 (07-12)

Approved for use through 11/30/2014. OMB 0851-0035  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number:

106963

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used).

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number:

106963

OR

<input type="checkbox"/>	Firm or Individual Name			
	Address			
	City	State	Zip	
	Country			
	Telephone	Email		

Assignee Name and Address: Headwater Partners I LLC  
555 Twin Dolphin Drive, Suite 310  
Redwood City, CA 94065 U.S.A.

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record	
The individual whose signature and title is supplied below is authorized to act on behalf of the assignee	
Signature	Date 25 June 2014
Name	David R. Johnson
Title	Chief Financial Officer
	Telephone 650-517-2782

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SAM-HW-2\_00215889



## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Raleigh	Examiner: not yet assigned
Serial No.: 14/667,353	Art Unit: 2652
Filed: March 24, 2015	Conf. No.: 8845
Title: Automated Device Provisioning and Activation	

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRELIMINARY AMENDMENT**

Prior to examination on the merits, please amend the above-identified application as follows:

**Amendments to the Specification** begin on page 2.

**Amendments to the Claims** begin on page 3.

**Remarks** begin on page 7.

14/667,353

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RALEP007C11C3

AMENDMENTS TO THE SPECIFICATION

Please amend the **Application Title** as follows:

Mobile Device With Common Secure Wireless Message Service Serving  
Multiple Applications

Please replace the **Abstract** with the following:

A mobile end-user device contains a device messaging agent that securely communicates with a network message server over a wireless network. The network message server delivers messages to the device messaging agent on behalf of a plurality of network application servers. Each network application server supplies the network message server with application data and an indication of a device and an application on the device to which the application data should be delivered. The network message server securely passes the data and an application identifier to the device messaging agent on the appropriate mobile end-user device. The device messaging agent maps the application identifier to a software process corresponding to the application, and a secure interprocess communication service delivers the application data to that software process.



AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Canceled).
2. (New) A mobile end-user device comprising:
  - a wireless wide-area network (WWAN) modem configurable to exchange Internet data via a connection to a first WWAN;
  - a device messaging agent to receive secure Internet data messages, on behalf of a plurality of software applications capable of execution on the device, and over a secure connection to a network message server reachable via the WWAN, wherein at least a subset of the secure Internet data messages contain an identifier for a corresponding one of the software applications and application data from a respective network application server corresponding to that application; and
  - a secure interprocess communication service, wherein the device messaging agent, for each message in the subset of the secure Internet data messages, maps the identifier to the corresponding one of the software applications in order to forward the application data on the secure interprocess communication service to a software process corresponding to the identified software application.
3. (New) The mobile end-user device of claim 2, further comprising the plurality of software applications.
4. (New) The mobile end-user device of claim 3, wherein the plurality of applications include a first application that receives the application data in a first format, and a second application that receives the application data in a second format different than the first format.
5. (New) The mobile end-user device of claim 2, wherein the secure Internet data messages are received encrypted, the device messaging agent decrypting each message in the subset to obtain the corresponding identifier and application data.

6. (New) The mobile end-user device of claim 5, wherein the secure Internet data messages are transported to the device messaging agent using one or more of encryption on a transport services stack, IP (Internet Protocol) layer encryption, and tunneling.
7. (New) The mobile end-user device of claim 2, wherein at least one of the applications comprises a service downloader, the service downloader authenticating a downloaded software application based on application data from at least one of the secure Internet data messages.
8. (New) The mobile end-user device of claim 7, wherein the software downloader is to download the downloaded software application using an Internet data connection other than the secure connection used for the secure Internet data messages.
9. (New) The mobile end-user device of claim 7, wherein the downloaded software application comprises an updated version of the device messaging agent.
10. (New) The mobile end-user device of claim 2, wherein the device messaging agent runs in a secure execution environment on the device, and at least one of the applications runs outside of the secure execution environment on the device.
11. (New) The mobile end-user device of claim 2, wherein the device messaging agent is further to send secure upload Internet data messages to the network message server over the secure connection, wherein at least a subset of the secure upload Internet data messages are sent responsive to a corresponding request received on the secure interprocess communication channel from a corresponding one of the software applications, the device messaging agent constructing from each such request a secure upload Internet data message containing:
  - an identifier for a respective network application server corresponding to the requesting software application; and
  - content received with the request.
12. (New) The mobile end-user device of claim 11, wherein at least one of the upload Internet data messages comprises a key for the network application server corresponding to the requesting software application.

13. (New) The mobile end-user device of claim 2, wherein the device messaging agent is configurable to create a log for the received secure Internet data messages.
14. (New) The mobile end-user device of claim 2, wherein the secure interprocess communication channel and the secure connection to the network message server are separately secured.
15. (New) The mobile end-user device of claim 2, wherein access by the software applications to the interprocess communication channel is subject to a security policy.
16. (New) The mobile end-user device of claim 2, wherein at least one of the secure Internet data messages comprises multiple identifier/data pairs.
17. (New) The mobile end-user device of claim 2, the device messaging agent comprising an agent router to forward the application data on the secure interprocess communication channel to the software process corresponding to the identified software application.
18. (New) The mobile end-user device of claim 2, wherein the secure interprocess communication service forwards the application data to at least one of the software processes in an encrypted format.
19. (New) The mobile end-user device of claim 2, the device messaging agent further to initiate the secure connection to the network message server.
20. (New) The mobile end-user device of claim 2, further comprising a network stack in communication with the device messaging agent and the WWAN modem, the secure connection terminated within the network stack.
21. (New) The mobile end-user device of claim 2, wherein at least one of the applications and the network application server corresponding to that application authenticate with each other prior to passing application data via the device messaging agent and network message server.



22. (New) The mobile end-user device of claim 2, further comprising a wireless local area network (WLAN) modem configurable to exchange Internet data via a connection to a first WLAN, the device messaging agent further configurable to receive the secure Internet data messages over a secure connection via the first WLAN to the network message server.

REMARKS

Applicant respectfully requests entry of the amendments provided herein. This preliminary amendment is presented before any office action. Claim 1 has been canceled, and new claims 2-22 have been added. No new matter has been added. If the Examiner has any questions or needs any additional information, the Examiner is invited to contact the undersigned.

The Commissioner is authorized to charge any fee deficiency or credit any overpayment to Deposit Account 50-5876.

Respectfully submitted,

Date: March 25, 2015

By: /James E. Harris/

James E. Harris  
Reg. No. 40,013  
Patent Counsel  
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CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being filed electronically via EFS-Web addressed to the Commissioner for Patents on:

Date: March 25, 2015

By: /Ann Taylor/  
Ann Taylor



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/667,353	03/24/2015	Gregory G. Raleigh	RALEP007C11C3	8845
106963	7590	07/10/2015		
Headwater Partners I LLC 555 Twin Dolphin Drive, Suite 310 Redwood Shores, CA 94065			EXAMINER RUDY, ANDREW J	
			ART UNIT	PAPER NUMBER
			3687	
			NOTIFICATION DATE	DELIVERY MODE
			07/10/2015	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@headwaterllc.com  
krista@jacobseniplaw.com



**Office Action Summary**Application No.  
14,667,353Applicant(s)  
RALEIGH, GREGORY G.Examiner  
ANDREW JOSEPH RUDYArt Unit  
3687AIA (First Inventor to File)  
Status  
No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2015.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5) ☒ Claim(s) 2-22 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 2-22 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a) ☐ All b) ☐ Some\*\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
Paper No(s)/Mail Date \_\_\_\_.
- 3) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Other: \_\_\_\_

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## DETAILED ACTION

### *Notice of Pre-AIA or AIA Status*

1. The present application is being examined under the pre-AIA first to invent provisions.
2. Applicant cancelled claim 1.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-22 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 1, line 3, "a first WWAN" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 2, line 4, "a device messaging agent" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.



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Claim 2, lines 4-5, "on behalf of a plurality of software applications" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 2, line 6, "a network message server" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 2, line 7, "a subset of the secure Internet data messages" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 2, line 8, "an identifier" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 2, line 11, "a secure interprocess communication service" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 3, line 2, "a first application" and "a first format" are not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 4, lines 2-3, "a second application" and "a second format" are not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 5, lines 2-3, "the device messaging agent decrypting each message in the subset" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 6, lines 2-3, "one or more of encryption on a transport services stack . . . and tunneling" is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Also, the "and tunneling is improper syntax in juxtaposition to the "one or more" preceding it.

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Claim 8, lines 1-3, "the service downloader . . . secure Internet messages" is not clear from the descriptive portion, e.g. service downloader 1663, of the specification in juxtaposition to the drawings.

Claim 11, lines 1-10, "The mobile end-user . . . content received with the request" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 12, lines 1-2, "at least one of the upload . . . a key for the network" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 13, line 2, "to create a log. . . data messages" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 15, lines 2-3, "the interprocess . . . security policy" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 16, lines 1-2, "the secure . . . identifier/data pairs" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 17, lines 2-4, "an agent. . . software application" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 20, lines 1-2, "a network stack. . . within the network stack" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Claim 21, lines 1-2, "at least one of the applications . . . network message server" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

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Claim 22, line 3, "a first WLAN" is not clear from the descriptive portion of the specification in juxtaposition to the drawings.

Clarification of where specific support for the above noted deficiencies from the specification in juxtaposition to the drawings is requested. As is, the metes and bounds of the claim language may not be properly ascertained.

Also, it is noted that Applicant's claim language is replete with intended use claim language, e.g. claim 2, line 2, "configurable to," that does not affirmatively limit the positively recited claim language, e.g. claim 2, line 1, "A mobile end user device."

5. Further pertinent references of interest are noted on the attached PTO-892.

6. Applicant's five (5) Information Disclosure Statements (IDS's) have been reviewed. Note the attached IDS's.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW JOSEPH RUDY whose telephone number is (571)272-6789. The examiner can normally be reached on Monday thru Friday.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.



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/ANDREW JOSEPH RUDY/

Primary Examiner

Art Unit 3687



<b>Notice of References Cited</b>	Application/Control No. 14/667,353	Applicant(s)/Patent Under Reexamination RALEIGH, GREGORY G.	
	Examiner ANDREW JOSEPH RUDY	Art Unit 3687	Page 1 of 1

## U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-9,049,010	06-2015	Jueneman et al.	1/1
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*	C	US-6,757,717	06-2004	Goldstein, Leonid	709/217
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

## FOREIGN PATENT DOCUMENTS

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	N					
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## NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875				Application or Docket Number <b>14/667,353</b>		Filing Date <b>03/24/2015</b>		<input type="checkbox"/> To be Mailed		
ENTITY: <input type="checkbox"/> LARGE <input checked="" type="checkbox"/> SMALL <input type="checkbox"/> MICRO										
<b>APPLICATION AS FILED – PART I</b>										
		(Column 1)			(Column 2)					
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)		
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A				
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A				
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A				
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =		*		X \$ =				
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		X \$ =				
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).								
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL				
<b>APPLICATION AS AMENDED – PART II</b>										
		(Column 1)			(Column 2)			(Column 3)		
AMENDMENT	<b>10/09/2015</b>		CLAIMS REMAINING AFTER AMENDMENT				HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA	
	Total (37 CFR 1.16(i))		* 21		Minus		** 21		= 0	
	Independent (37 CFR 1.16(h))		* 1		Minus		*** 3		= 0	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE		<b>0</b>		
		(Column 1)			(Column 2)			(Column 3)		
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT				HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA	
	Total (37 CFR 1.16(i))		*		Minus		**		=	
	Independent (37 CFR 1.16(h))		*		Minus		***		=	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))									
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE				
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>										

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Raleigh	Examiner: Rudy, Andrew J.
Serial No.: 14/667,353	Art Unit: 3687
Filed: March 24, 2015	Conf. No.: 8845
Title: Mobile Device With Common Secure Wireless Message Service Serving Multiple Applications	

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT AND RESPONSE**

In response to the Office Action dated July 10, 2015, the deadline for response being October 12, 2015, please amend the above-identified application as follows:

**Amendments to the Claims** begin on page 2.

**Remarks** begin on page 6.



AMENDMENTS TO THE CLAIMS

Without prejudice and without surrender of any subject matter, please amend the claims as follows:

1. (Canceled).
2. (Currently Amended) A mobile end-user-area device comprising:
  - a wireless wide-area network (WWAN) modem ~~configurable~~ to exchange Internet data via a connection to a first WWAN, when configured for and connected to the first WWAN;
  - a device messaging agent to receive secure Internet data messages, on behalf of a plurality of software applications capable of execution on the device, and over a secure connection to a network message server reachable via the WWAN, wherein at least a subset of the secure Internet data messages contain an identifier for a corresponding one of the software applications and application data from a respective network application server corresponding to that application; and
  - a secure interprocess communication service, wherein the device messaging agent, for each message in the subset of the secure Internet data messages, maps the identifier to the corresponding one of the software applications in order to forward the application data on the secure interprocess communication service to a software process corresponding to the identified software application.
3. (Previously Presented) The mobile end-user device of claim 2, further comprising the plurality of software applications.
4. (Previously Presented) The mobile end-user device of claim 3, wherein the plurality of applications include a first application that receives the application data in a first format, and a second application that receives the application data in a second format different than the first format.
5. (Previously Presented) The mobile end-user device of claim 2, wherein the secure Internet data messages are received encrypted, the device messaging agent decrypting each message in the subset to obtain the corresponding identifier and application data.



6. (Currently Amended) The mobile end-user device of claim 5, wherein the secure Internet data messages are transported to the device messaging agent using one or more of encryption on a transport services stack, IP (Internet Protocol) layer encryption, and transport via a tunnel tunneling.
7. (Previously Presented) The mobile end-user device of claim 2, wherein at least one of the applications comprises a service downloader, the service downloader authenticating a downloaded software application based on application data from at least one of the secure Internet data messages.
8. (Currently Amended) The mobile end-user device of claim 7, wherein the ~~service software~~ downloader is to download the downloaded software application using an Internet data connection other than the secure connection used for the secure Internet data messages.
9. (Previously Presented) The mobile end-user device of claim 7, wherein the downloaded software application comprises an updated version of the device messaging agent.
10. (Previously Presented) The mobile end-user device of claim 2, wherein the device messaging agent runs in a secure execution environment on the device, and at least one of the applications runs outside of the secure execution environment on the device.
11. (Previously Presented) The mobile end-user device of claim 2, wherein the device messaging agent is further to send secure upload Internet data messages to the network message server over the secure connection, wherein at least a subset of the secure upload Internet data messages are sent responsive to a corresponding request received on the secure interprocess communication channel from a corresponding one of the software applications, the device messaging agent constructing from each such request a secure upload Internet data message containing:
  - an identifier for a respective network application server corresponding to the requesting software application; and
  - content received with the request.
12. (Previously Presented) The mobile end-user device of claim 11, wherein at least one of the upload Internet data messages comprises a key for the network application server corresponding to the requesting software application.

13. (Currently Amended) The mobile end-user device of claim 2, wherein the device messaging agent ~~is configurable to~~ creates a log for the received secure Internet data messages.
14. (Previously Presented) The mobile end-user device of claim 2, wherein the secure interprocess communication channel and the secure connection to the network message server are separately secured.
15. (Previously Presented) The mobile end-user device of claim 2, wherein access by the software applications to the interprocess communication channel is subject to a security policy.
16. (Previously Presented) The mobile end-user device of claim 2, wherein at least one of the secure Internet data messages comprises multiple identifier/data pairs.
17. (Previously Presented) The mobile end-user device of claim 2, the device messaging agent comprising an agent router to forward the application data on the secure interprocess communication channel to the software process corresponding to the identified software application.
18. (Previously Presented) The mobile end-user device of claim 2, wherein the secure interprocess communication service forwards the application data to at least one of the software processes in an encrypted format.
19. (Previously Presented) The mobile end-user device of claim 2, the device messaging agent further to initiate the secure connection to the network message server.
20. (Previously Presented) The mobile end-user device of claim 2, further comprising a network stack in communication with the device messaging agent and the WWAN modem, the secure connection terminated within the network stack.
21. (Previously Presented) The mobile end-user device of claim 2, wherein at least one of the applications and the network application server corresponding to that application authenticate with each other prior to passing application data via the device messaging agent and network message server.

22. (Currently Amended) The mobile end-user device of claim 2, further comprising a wireless local area network (WLAN) modem ~~configurable~~ to exchange Internet data via a connection to a first WLAN, when configured for and connected to the first WLAN, the device messaging agent further ~~configurable~~ to receive ~~[[the]]~~ secure Internet data messages over a secure connection via the first WLAN to the network message server.



REMARKS

Claims 2-22 are pending and stand rejected by the Office Action dated July 10, 2015. Claim 1 was previously canceled. Applicant has amended claims 2, 6, 8, 13, and 22. In view of the amendments to the claims and the following remarks, Applicant respectfully requests reconsideration.

In section 4, the Office Action rejects claims 2-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Applicant addresses each particular rejection in order below. As a preliminary comment, however, the specification and drawings are rich in examples—Applicant has not endeavored to find all possible support for the claim terms, and the citation to specific examples below is intended to illustrate that those skilled in the art have the material at hand to ascertain what is meant by the various terms, while not precluding an appropriate inquiry into the actual scope of a claim by one skilled in the art and/or a tribunal tasked with such an effort.

**Claim 2, line 3:** The Office Action states that “a first WWAN” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The modifier “first” is merely indicative that this is an identifiable WWAN to which the modem can connect, and there could be several. Figure 3, for example, illustrates the existence of multiple WWAN networks and central providers that a device can roam between. (Specification at [00115]). Figure 8 illustrates a network architecture for service-processor-enabled wireless devices, with exemplary ones of the devices connected to selected ones of multiple wireless access networks described as “3G and 4G Wireless Wide Area Networks (WWANs).” (Specification at [0012]). The specification states “[i]t is a common network architecture for multi-access central providers to have one or more wired access networks and one or more wireless networks. As shown, Figure 8 includes both 3G and 4G wireless access networks, including a 4G base station 125 and a 3G base station 125...” Figure 9 includes a basic structure for a mobile end-user device that includes a service processor 115 (e.g., like the devices shown in Figure 8) and the accompanying text describes modem aspects. (Specification at [00135]). Figure 11 and accompanying text describes another WWAN embodiment. (Specification at [00141]-[00145]). Figure 18 shows a



device with a modem selection and control 1811 to select an access network connection, and multiple modem drivers/modems including a WWAN modem driver. (Specification at [00301]; *see also* Figure 21 and [00314]). Finally, with particular applicability to the present messaging claims, paragraph [00322] states that “embodiments described herein disclose a secure and bandwidth efficient control plane that ... provides for consistent device assisted service monitoring, control, verification and/or billing while roaming across multiple networks with different access technologies...” Such examples clarify a variety of ways in which the WWAN modem of claim 1 can achieve a connection to a first WWAN, and based on such, one skilled in the art would readily understand the meaning of a “first WWAN” in claim 1.

**Claim 2, line 4:** The Office Action states that “a device messaging agent” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The specification states that the service processor “includes various components, such as device agents, that perform service policy implementation or management functions” including “service control plane communication.” (Specification at [00100]). This same paragraph acknowledges that the division of functionality between agents is a design choice and “that the placing divisions on the naming and functional breakouts for device agents aids in understanding.” (*Id.*). For instance, Figure 18, also referenced in the paragraph above, illustrates a device messaging agent embodiment as a “service control device link 1691” with messaging functionality as described in claim 2 and acknowledged to be, in some embodiments, “equivalent to an agent for communication purposes.” (*Id.* at [00184]). The service control device link is further illustrated in Figure 24, and the data units passed between the service control server link and the service control device link are referred to interchangeably as “communications,” “communication messages,” and “messages.” (*Id.* at [00323]-[00327]; *see also* [00173]-[00181] for message examples). Applicant has selected the most predominantly used one of the synonymous terms (“messages”) as descriptive of the device agent in the claims, thus “device messaging agent” is the selected term. The term “device messaging agent” is preferred over the more embodiment-limited term “service control device link” as the specification envisions such an agent being useful for more than just service control, e.g., also useful to manage “a set of secure messages that allow communication between certain agents or service processor functions and entities outside of the service processor operating environment.” (*Id.* at [00184]). Applicant respectfully

submits that such specification teachings, in conjunction with the further descriptive limitations present in claim 2, present a clear meaning for the claim term “device messaging agent.”

**Claim 2, lines 4-5:** The Office Action states that “on behalf of a plurality of software applications” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. For the various device agents, functions, and other entities that execute on the device and can receive messages from the device messaging agent, various embodiments describe such entities as implemented in software as different software components, applications and/or agents. (Specification at [0089], [00100], [00186]). The idiom “on behalf of” is used in its ordinary meaning indicating operation in a proxy capacity—thus the term “on behalf of a plurality of software applications capable of execution on the device” as understood from the specification merely indicates that the secure Internet data messages are directed to the device messaging agent, with the expectation that the device messaging agent will deliver the internal contents of the messages to the appropriate processes on the device based on the application ID(s) in each message.

**Claim 2, line 6:** The Office Action states that “a network message server” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The “service controller 122” shown throughout the drawings and described throughout the specification “in various embodiments includes one or more server functions.” (Specification at [00101]). The specification clarifies “that the server names and functional breakouts do not imply that each name is an individual server, and, for example, a single named function in the various embodiments can be implemented on multiple servers, or multiple named functions in the various embodiments can be implemented on a single server.” (*Id.*). In this context, Figure 18 illustrates an embodiment of a “network message server”—the “service control server link 1638” that communicates with a given device over a “service control link 1653” that is reachable over the WWAN. The specification describes this server link as important to provide “an efficient and flexible control plane communication link between the device agents (e.g., of the service processor) and the network elements (e.g., of the service controller 122) communicating with, controlling, monitoring, or verifying service policy.” (Specification at [00259]). This paragraph further provides “this control plane communication link provides for a secure (e.g., encrypted) communications link for providing secure, bidirectional communications between the service processor 115 and the service controller 122.” (*Id.*). Although a typographical error appears to



have omitted the word “messages,” this same paragraph also states that “the service control server link 1638 provides the network side of a system for transmission and reception of service agent [messages] to/from network element functions.” (*Id.*). Further, the specification states that “it is assumed that the device base[d] service control plane channel for service processor 115 to service controller 122 communications is established through the Internet 120 or through the access network using IP protocols as this is the more general case and applies to overlay network applications for various embodiments...” (*Id.* at [00105]). Accordingly, it is clear from the specification that the “network message server” is the network-side peer of the “device messaging agent,” and is responsible for formatting and sending the messages received by the device messaging agent, as further limited by the claim features.

**Claim 2, line 7:** The Office Action states that “a subset of the secure Internet data messages” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The use of the language “at least a subset” is intended to indicate that the secure Internet data messages sent to the device messaging agent can be sent for multiple purposes, only one of which is to provide data to applications. For instance, in Figure 18 the service control device link communicates with multiple applications/agents over bus 1630, but also is in direct communication with service downloader 1663. As described in the specification, software elements can be communicated to the device, using device link 1691, as single files or as multiple messages that the service downloader aggregates, verifies, and installs. (Specification at [00182]).

**Claim 2, line 8:** The Office Action states that “an identifier” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. One example of such an identifier is shown in the Figure 25 multi-message frame format, where each separate message payload comprises an agent function ID, a message length, and the message data. Thus one skilled in the art will understand that the identifier is a value that the device messaging agent and network message server both associate with an agent/function/process/application on the device.

**Claim 2, line 11:** The Office Action states that “a secure interprocess communication service” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. As shown, e.g., in the Figure 24 embodiment, the device messaging agent “Agent Route 2416” element 2416 routes the unpacked messages to the appropriate software process/agent over an agent communication bus 1630. (Specification at [00183]-[00186]).

[00325]). In various embodiments the secure interprocess communication service is embodied as “an inter-process software communication bus,” which can be “a variant of D-bus (e.g., a message bus system for inter-process software communication that, for example, helps applications/agents to talk to one another),” or “another inter-process communication protocol or system, running a session bus in which all communications over the session bus can be secured, signed, encrypted or otherwise protected.” (*Id.* at [00186]).

**Claim 4, lines 2-3:** The Office Action states that “a first application,” “a first format,” “a second application,” and “a second format” are not clear from the descriptive portion of the specification in juxtaposition to the drawings. As discussed above, the software elements that can receive the messages can be embodied as different software components, agents, and/or applications. As depicted, e.g., in Figure 18, many different ones of these elements can all use the message service (e.g., elements 1690, 1692, 1693, 1694, 1695, 1696, 1697, 1655, 1804 couple to the communication bus in Figure 18). Thus the use of “first” and “second” applications merely indicates two such elements that receive different types of formatted data in the messages from their respective network application servers. The specification contains many examples of the “first” and “second” data formats. For instance, Figures 26A-H illustrate different types of data that are messaged between different network application servers and different device applications. Many other examples and further details exist in the specification.

**Claim 5, lines 2-3:** The Office Action states that “the device messaging agent decrypting each message in the subset” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Figure 24 shows, within an embodiment 1691 of a device messaging agent, a “decode element 2412” which the specification describes as “for decoding any received service controller 122 communications (e.g., decrypting encrypted communications).” (Specification at [00325]).

**Claim 6, lines 2-3:** The Office Action states that “one or more of encryption on a transport services stack ... and tunneling” is not clear from the descriptive portion of the specification in juxtaposition to the drawings, and that the term “and tunneling” is improper syntax in juxtaposition to the term “one or more” preceding it. Applicant has modified the syntax of the claim. The different alternatives called out in the claim, including an explanation that multiple ones of them may be used together, appear in paragraph [00323] of the specification.



**Claim 8, lines 1-3:** The Office Action states that “the service downloader ... secure Internet messages” is not clear from the descriptive portion, e.g. service downloader 1663, of the specification in juxtaposition to the drawings. Applicant has corrected an inadvertent error in claim 8, wherein the “service downloader” was inadvertently called out as a “software downloader.” Support for the claim limitation may be found, e.g., as follows: “[i]n some embodiments, the files [for a software download] are sent using other delivery means, such [as] a direct TCP socket connection to the service downloader 1663 or some other software installer, which can also involve secure transport and additional levels of encryption.” (Specification at [00182]).

**Claim 11, lines 1-10:** The Office Action states that “the mobile end-user ... content received with the request” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Claim 11 is intended to cover the reverse or upload channel that allows various device applications to send data to a respective corresponding application server. The supporting sections of text for the forward or download channel, identified in the comments regarding claim 2 above are instructive as analogous. (See, e.g., Specification at [00259], “this control plane communication link provides for a secure (e.g., encrypted) communications link for providing secure, bidirectional communications between the service processor 115 and the service controller 122.”). Figure 24 shows that the device messaging agent contains “framing” and “encrypt” functions, like the server-side peer, to prepare and package upload messages. Figure 25 shows analogous message constructs for upload and download messages. The “service control server link 1638 provides the network side of a system for transmission and reception of service agent to/from network element functions.” (Specification at [00259]).

**Claim 12, lines 1-2:** The Office Action states that “at least one of the upload ... a key for the network” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Secure device agent-to-corresponding network element communication examples, including various types of keys and signing, are described, e.g., at specification paragraphs [00173]-[00181].

**Claim 13, line 2:** The Office Action states that “to create a log... data messages” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Specification paragraph [00191] describes a communication trace log for, e.g., “service controller 122 to agent communications.”

**Claim 15, lines 2-3:** The Office Action states that “the interprocess... security policy” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Specification paragraph [00185] describes several different security policies that can be used to limit application access to the agent bus, which as described above is an embodiment of the secure interprocess communication channel.

**Claim 16, lines 1-2:** The Office Action states that “the secure ... identifier/data pairs” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. Figure 25 illustrates such a message structure, wherein the portion of the data message after the framing sequence and time stamp is composed of a variable number of agent messages, each formatted as an agent identifier with a paired message payload (length field followed by a message of that length). (Specification at [00326]-[00327]).

**Claim 17, lines 2-4:** The Office Action states that “an agent.... software application” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The device messaging agent embodiment of Figure 24 includes an “agent route” function 2416 to route the messages to the appropriate software process over the interprocess communication channel 1630. (Specification at [00325]).

**Claim 20, lines 1-2:** The Office Action states that “a network stack... within the network stack” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. The traffic monitoring function is taught to monitor various kinds of traffic, including “traffic transmitted and/or received by one or more activities associated with the service control plane link or other network related functions...” (Specification at [00221]). The traffic monitoring function is shown implementing measurement at various points in the network stack in Figures 29-37, and the stack is shown in several of these figures in communication with one or more modems (one of which can be a WWAN modem), thus it can be readily understood that the measured traffic passes through the stack (IP and TCP layers are also shown). Finally, the methods for providing security layers for the communications link used for the service control device link include “basic IP layer security” and “TCP layer security.” (Specification at [00260]). Accordingly, those skilled in the art will understand that the secure connection can include security terminated in the network stack illustrated in the figures.

**Claim 21, lines 1-2:** The Office Action states that “at least one of the applications ... network message server” is not clear from the descriptive portion of the specification in



juxtaposition to the drawings. One example of this is the challenge/response example in paragraphs [00178]-[00179], e.g., between the access control integrity server and the policy implementation agent.

**Claim 22, line 3:** The Office Action states that “a first WLAN” is not clear from the descriptive portion of the specification in juxtaposition to the drawings. As addressed above with regard to claim 2, the term “first” merely indicates one of several potential WLAN connections. Specification paragraph [00257] describes several considerations for WLAN connection and network selection. Figure 6 shows one example where service-processor-equipped mobile devices connect to a service controller over either a WWAN or a WLAN.

The Office Action further notes “that Applicant's claim language is replete with intended use claim language, e.g. claim 2, line 2, ‘configurable to,’ that does not affirmatively limit the positively recited claim language, e.g. claim 2, line 1, ‘A mobile end user device.’” Applicant has revised the claims to replace “configurable to” language, as suggested.

CONCLUSION

Applicant respectfully requests entry of these amendments as provided herein. The application is believed to be in condition for allowance, and a Notice of Allowance is hereby respectfully requested. If the Examiner has any questions or needs any additional information, the Examiner is invited to contact the undersigned.

The Commissioner is authorized to charge any fee deficiency or credit any overpayment to Deposit Account 50-5876.

Respectfully submitted,

Date: October 9, 2015

By: /James E. Harris/

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Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2012. OMB 0651-0031  
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		14667353
	Filing Date		2015-03-24
	First Named Inventor	Gregory G. Raleigh	
	Art Unit	3687	
	Examiner Name	Rudy, Andrew J.	
	Attorney Docket Number	RALEP007C11C3	

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
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	7	6628934	A	2003-09-30	Rosenberg et al.	
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**INFORMATION DISCLOSURE  
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( Not for submission under 37 CFR 1.99)

Application Number	14667353
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Art Unit	3687
Examiner Name	Rudy, Andrew J.
Attorney Docket Number	RALEP007C11C3

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SAM-HW-2\_00216570



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<b>Issue Classification</b> 	<b>Application/Control No.</b> 14667353	<b>Applicant(s)/Patent Under Reexamination</b> RALEIGH, GREGORY G.
	<b>Examiner</b> ANDREW JOSEPH RUDY	<b>Art Unit</b> 3687

CPC					Type	Version
Symbol						
H04W	12	/	08		F	2013-01-01
G06Q	10	/	06375		I	2013-01-01
G06Q	20	/	102		I	2013-01-01
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G06Q	20	/	40		I	2013-01-01
G06Q	30	/	0207		I	2013-01-01
G06Q	30	/	0283		I	2013-01-01
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(Assistant Examiner)					21	
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/ANDREW JOSEPH RUDY/ Primary Examiner.Art Unit 3687					10/25/2015	O.G. Print Claim(s)
(Primary Examiner)					(Date)	O.G. Print Figure
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H04L	63	/	0428		2013-01-01
H04W	4	/	12		2013-01-01
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CPC Combination Sets					
Symbol	Type	Set	Ranking	Version	

NONE		<b>Total Claims Allowed:</b>	
		21	
(Assistant Examiner)	(Date)		
/ANDREW JOSEPH RUDY/ Primary Examiner, Art Unit 3687	10/25/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	8



**CROSS REFERENCE(S)**

NONE

**Total Claims Allowed:**

21

(Assistant Examiner)

(Date)

/ANDREW JOSEPH RUDY/  
Primary Examiner, Art Unit 3687

10/25/2015

O.G. Print Claim(s)


O.G. Print Figure

(Primary Examiner)

(Date)

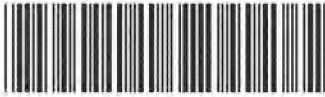
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NONE		<b>Total Claims Allowed:</b>	
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(Assistant Examiner) /ANDREW JOSEPH RUDY/ Primary Examiner, Art Unit 3687	(Date) 10/25/2015	O.G. Print Claim(s) 1	O.G. Print Figure 8
(Primary Examiner)	(Date)		

**Search Notes**

Application/Control No.

14/667,353

Examiner

ANDREW JOSEPH RUDY

Applicant(s)/Patent under  
Reexamination

RALEIGH, GREGORY G.

Art Unit

3687

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Class	Subclass	Date	Examiner
370	252,351	10/28/2015	AJR
380	44,27	10/28/2015	AJR
705	28,30	10/28/2015	AJR
709	229,238	10/28/2015	AJR
713	150	10/28/2015	AJR
726	2-7	10/28/2015	AJR
455	405,406	10/28/2015	AJR
455	414.1	10/28/2015	AJR
455	432.2	10/28/2015	AJR
H04L	63/08	10/28/2015	AJR
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Class	Subclass	Date	Examiner
726	2-7	10/28/2015	AJR
455	432.2	10/28/2015	AJR

**SEARCH NOTES  
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Continuity data reviewed.	10/28/2015	AJR